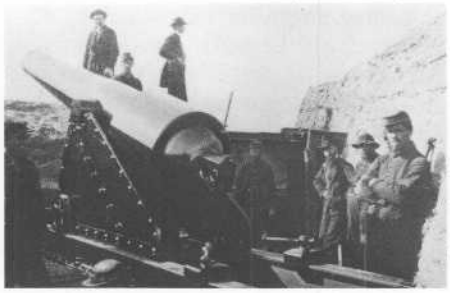
Combat Operations

from the Mexican War to the Mexican Punitive Expedition

Union troops at gun emplacement, 1863.



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Major General Gustavus W. Smith (Civil War-era photo).

The Mexican War

On May 15, 1846, soon after the Mexican War began, Congress authorized the War Department to raise a company of engineers. This unit, the first regular Army engineer company, acted as sappers and miners during the arduous and lengthy marches of the war. It also erected siege batteries at Mexico City, an important contribution to the assault of that capital.

At the Battle of Contreras in August 1847, Lieutenant Gustavus W. Smith, then commanding the engineer company, asked for and received permission to participate in the attack. Smith and his men initially led the assault, which the commanding general halted and rescheduled for the next morning upon observing the arrival of enemy reinforcements. The next morning, the engineer company, along with a rifle regiment, attacked the Mexicans in the rear. Most of the enemy troops fled, but a few remained to fire grapeshot at the Americans from about 25 yards. Although partially shaken by the blast, the engineer company chased the fleeing Mexicans for some distance before receiving orders to return to the main army.

In all 44 engineer officers served in the Mexican War including Robert E. Lee, George B. McClellan, P.G.T. Beauregard and Henry W. Halleck. Practically all of these engineers served on the staffs of general officers and performed reconnaissance and intelligence work, especially around Mexico City.

Following the Mexican War, the engineer officers returned to peacetime duties, including fortification construction, exploration, surveying and river, harbor and road work. The engineer company, which spent a good deal of its time at West Point in the postwar period, did accompany some exploring expeditions to the West and performed other tasks in various parts of the country. Although the Army fought many Indian Wars during this period, the engineers were seldom involved.

The Civil War

Thirteen years after the Mexican War, the Civil War erupted. For Civil War service, the War Department increased the number of regular Army engineer troops to four companies, constituting one battalion. This battalion, along with the various volunteer engineer and pioneer units, cleared obstacles; constructed roads, bridges, palisades, stockades, canals, blockhouses, signal towers and in one instance, a church; laid down hundreds of ponton bridges; and erected field fortifications, augmenting them with entanglements. Often, these units accomplished their work under extremely adverse conditions. At Fredericksburg, Virginia, in December 1862, they laid six ponton bridges across the Rappahannock River under devastating fire from Confederate sharpshooters. In June 1864, Army of the

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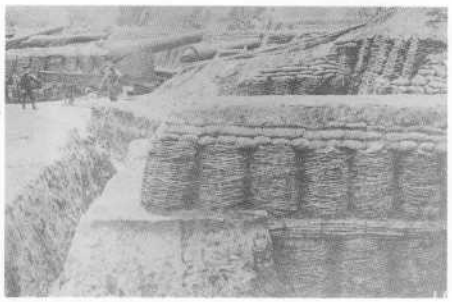
Ponton bridge.



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Parrott guns in Number 1 Battery near Yorktown, May 1862.

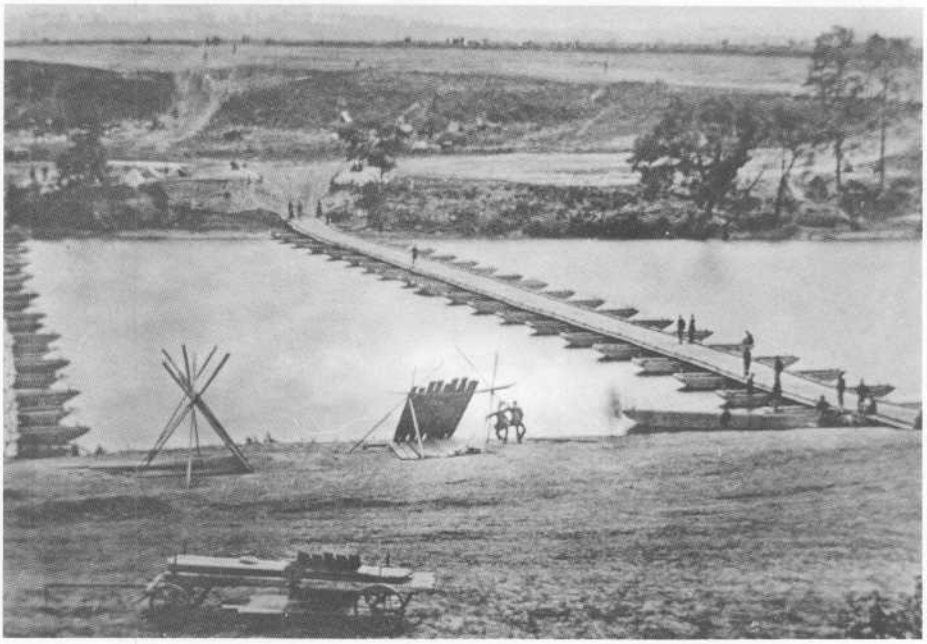
Potomac engineer troops constructed a 2,170-foot ponton bridge across the James River, the longest floating bridge ever constructed by U.S. Army Engineers.

When the Civil War began, two engineer corps existed in the Union Army, the Topographical Engineers and the Engineers. But the exigencies of the war required stricter coordination of engineer activities. Therefore in 1863, the War Department integrated the smaller Corps of Topographical Engineers into the Corps of Engineers under the command of the Chief Engineer. The title changed to Chief of Engineers in 1866.

The Union Engineers could not benefit from the talents of McClellan, Halleck, George G. Meade, William S. Rosecrans, William B. Franklin, Gouverneur K. Warren, James B. McPherson and Andrew A. Humphreys, who all became general officers commanding combined troops. Likewise, Montgomery C. Meigs was the quartermaster general of the Union Army and furnished the required support and supplies to the troops in the field. By the end of the war, James H. Wilson was a cavalry general.

Other able officers though, like Henry Brewerton, John G. Barnard and Nathaniel Michler, were engineers throughout the war. These men conducted surveys and reconnaissances to provide useful intelligence reports and maps; directed siege operations; and oversaw the operations of engineer troops. Three young engineer lieutenants, William H. H. Benyaurd, John M. Wilson and George L. Gillespie, received Congressional Medals of Honor for gallantry under fire and the latter two concluded their Army careers as Chief of Engineers. Competent volunteer engineer officers like William G. Margedant, who developed a process for duplicating maps in the field, also greatly aided the Union war effort.

The Confederacy gladly accepted the services of 15 engineer officers who resigned their commissions in the U.S. Army. Former engineer officers, such as Lee, Beauregard and Joseph E. Johnston, became Confederate army commanders. Edward P. Alexander was the Confederate artillery commander in the Army of Northern Virginia. To accomplish the necessary engineer work, the Confederacy commissioned many former civilians and raised engineer and pioneer units.



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Ponton bridge across the Rappahannock River, built by the 50th and 15th New York Engineers, 1863.

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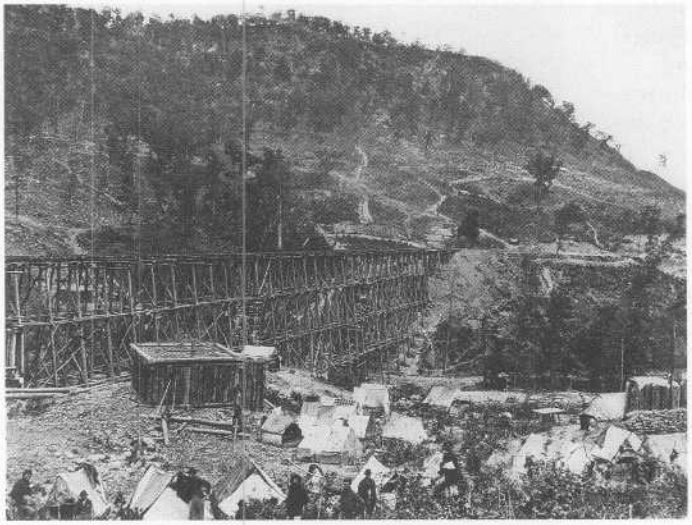
U.S. Army engineers building a military railroad, 1862.

U.S. Military Academy Library

Remodeled Confederate fort, part of federal line of defenses for Atlanta, November 1864.

U.S. Military Academy Library

Troops at Fort Wagner bombproof.



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Railroad trestle bridge built by 1st Michigan Engineers and Mechanics Regiment at Whiteside, Tennessee, in 1864. The four-tiered bridge was 780 feet long.

The Use of Civil Experience in Wartime: Gouverneur K. Warren at Gettysburg

By the summer of 1863, Major General Gouverneur K. Warren, United States Volunteers, had developed a keen eye for terrain. As a Topographical Engineer during the 1850s, Warren had led three exploring expeditions into Nebraska and the Dakotas. In addition he had produced the first comprehensive map of the trans-Mississippi West, an accomplishment that has brought him wide and deserved acclaim.

This talent for assessing terrain, nurtured in civil assignments before the secession crisis, stood Warren in good stead during the Civil War. On the second day of the battle of Gettysburg, Warren saw that the hill called Little Round Top on the southern flank of the Union line was weakly defended. Right away he knew that a strong Confederate attack on the hill menaced the entire Army. To the west, on Seminary Ridge, Confederate General John B. Hood reached the same conclusion and sent a force to take the hill. When Hood's men arrived they found strong Union reinforcements already in place. After a sharp fight, the Confederates withdrew. Warren had beaten them to the hill and saved the day for the Union.

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Students at Willets Point building a ponton bridge, 1889.

Post-Civil War Period

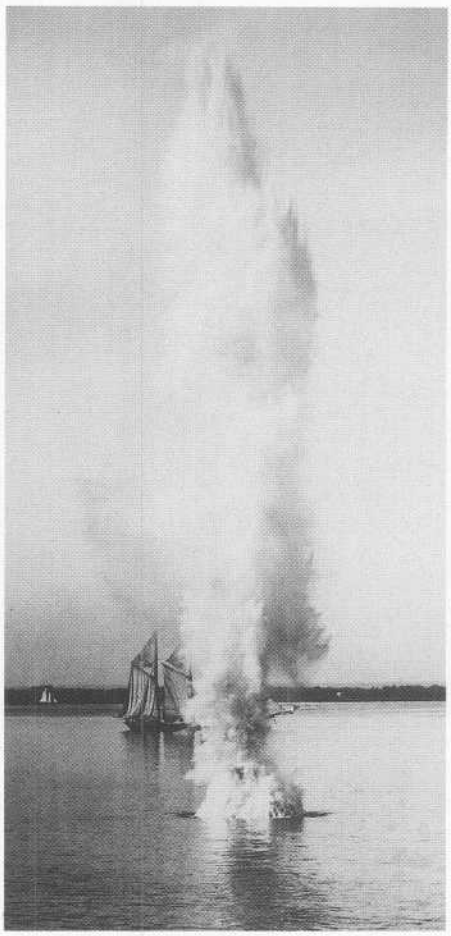
After the Civil War and until the outbreak of the Spanish American War, engineer combat experience was minimal. Most engineer officers returned to civil works or fortification construction duty. Nevertheless, engineers attempted to stay abreast of new military engineering methods and innovations.

Soon after the Civil War ended, Congress abolished the Corps of Engineers' supervision of the U.S. Military Academy at West Point, New York. Therefore the Corps, unofficially at first, established an Engineer School at Fort Totten, Willets Point, New York Harbor, in 1866. The school's staff instructed the students, both officers and enlisted men, in civil and military engineering and provided practical training in mapping, military photography and laying submarine mines and bridges, both ponton and trestle. Besides teaching, the staff, especially Henry L. Abbot, who was the superintendent, experimented with and developed new equipment.

Some officers did serve with the "Indian-fighting army" on the western frontier. A few, like William Ludlow, accompanied the troops on reconnaissances and scouting expeditions. Generally though, these officers' main duties were surveying and mapping.

Other officers such as Barton S. Alexander, Cyrus B. Comstock, Peter S. Michie, John M. Wilson, William Craighill, William E. Merrill and William Ludlow travelled abroad, sometimes as military attaches. Often, they had the chance to observe foreign engineer troops, equipment and techniques. A few, including Francis V. Greene, actually witnessed engineer operations in battle.

The War Department created a fifth regular army company of engineers in December 1865. Between the Civil War and the Spanish American War the five companies of the battalion, usually understrength, performed various duties from serving at engineer depots in New York Harbor, St. Louis and San Francisco to riot control during the 1877 railroad strikes. Individual engineer soldiers assisted at numerous civil works and fortification sites throughout the country.



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Underwater mine testing at the Engineer School, Willets Point, New York.

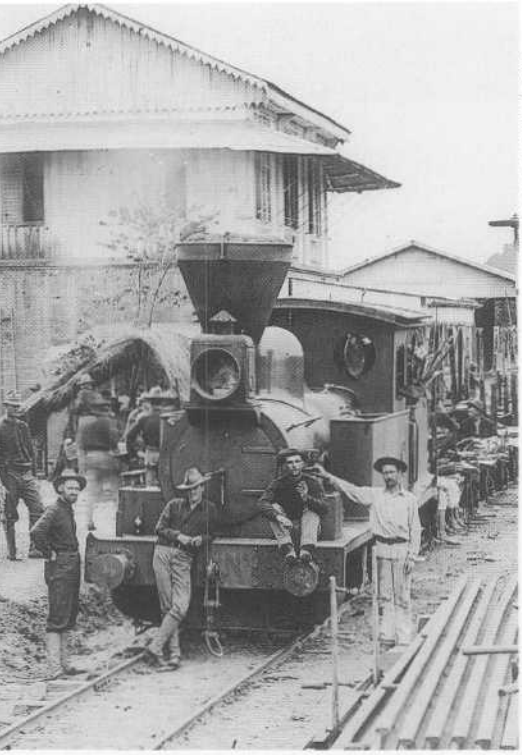
We Don't Surrender Much!

At the end of 1862 Colonel William D. Innes and 391 men of the First Michigan Engineers were repairing roads and railroads at the rear of the Union Army near Murfreesboro (Stone's River), Tennessee, when a Confederate cavalry division commanded by General Joseph Wheeler flanked the Union Army to strike hard at supply trains on the way from Nashville to Stone's River. The surprise attack left Innes and the engineers without time to escape the gray-clad troopers, and Innes rushed his unit up a nearby hill.

From the top of the hill Innes could see the advancing Confederate columns and realized he had no time to entrench his position. But the hill was covered with clumps of red cedar trees and Innes quickly decided to use this resource. He sent the engineers scrambling around the hill, slashing down the small trees to open a field of fire and piling the cedars in a waist-high circle around the crest of the hill.

Confederates in greatly superior force soon surrounded the hill. An officer under a flag of truce advanced to demand surrender from the engineer detachment and was surprised by Innes's acerbic reply: "Tell General Wheeler I'll see him damned first." Innes continued, "We don't surrender much. Let him take us."

Confederate cavalry soldiers swept up the hill toward the position, but a volley of union fire hurled them back pell-mell. The Confederates then unlimbered field artillery and began pounding the hill, but the engineers scraped shallow foxholes and held their place. A second cavalry assault followed and then a third. In all the cavalry made seven attempts to take the hill, yet the engineers stood their ground until the Confederates concluded the effort was not worth the cost. The engineers suffered 11 casualties; the Confederates nearly 50.



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Engineers' train in the Philippines during the Insurrection.

Guards at trenches dug by engineers, Guantanamo, Cuba.

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The Spanish-American War and Philippine Insurrection

In 1898 the United States went to war with Spain and the engineers provided extensive combat support. In the far-flung theaters of the war from Cuba and Puerto Rico to the Philippines, the engineers aided the Army by erecting landing piers, constructing bridges, building and maintaining roads and repairing and operating railroads. Young but capable lieutenants, like Lytle Brown, Eben E. Winslow and William D. Connor, led engineer detachments on dangerous reconnaissance missions, sometimes in the midst of combat. Volunteer engineer units, often commanded by regular army officers, also served in the war. Former engineer officers, such as Francis V. Greene and William Ludlow, were brigade and higher unit commanders.

Following the Spanish-American War, an insurrection broke out in the Philippines. Companies A and B of the Engineer Battalion served in the initial stages of the conflict. The insurrectionists' guerrilla warfare tactics necessitated rapid Army movements. Thus, engineer detachments, commanded by William Sibert, John Biddle, John C. Oakes and Harley B. Ferguson, among others, had to repair roads, build bridges and perform reconnaissance rapidly over difficult jungle and mountain terrain. Frequently the engineer troops, who carried rifles as well as picks and axes, joined the infantry in fighting off an attack before completing work on a road or bridge. The requirements of combat, especially in the Philippines, influenced the 1901 reorganization of the engineers into three battalions of four companies each. Although the fighting subsided in the Philippines in the early 20th century, it did not cease, and engineer troops served in the islands, often in combat, for many years afterwards.

The Mexican Punitive Expedition

In 1916 the Corps of Engineers formed three regiments of six companies each from the battalions. In the same year, the United States launched a punitive expedition to Mexico to chastise the "bandits" under Pancho Villa who had raided American Territory. The use of cars and supply trucks required better roads and bridges than ever before. Lytle Brown, now a major, was only one of many engineer officers who served in Mexico. Most likely, these officers were thankful for the experience which was put to the test after April 1917, when the United States entered World War I.

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Postcard showing troops near the Mexican border.